

Title: **MACHINES AND EQUIPMENTS  
MAINTENANCE AND REPAIRS  
SOW FOR BOSM AND  
GENERATOR SERVICES**

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## 1. PURPOSE

The purpose of this document is to define the services needed from the Contractor for a provision of the reliable high quality, comprehensive and cost-effective maintenance and repairs of the Machines for Bearings and On-site Machining (BOSM), Non-Destructive Testing (NDT) Services and Generator Services (Gen Serv).

## 2. CONTEXT FOR MACHINES AND EQUIPMENT MAINTENANCE AND REPAIRS

Eskom Rotek Industries (ERI) BOSM, NDT and Gen Services is looking for a Contractor to provides Maintenance and repairs services on different machines and equipment as of when required for a period of 5 years.

## 3. Scope of Work

The Contractor is expected to perform maintenance and repairs on the different machines and equipment which include but not limited to the following:

### BOSM Machines and Equipment list

PRODUCTION DESCRIPTION	QUANTITY REQUIRED PER YEAR	Inspection period
Pneumatic Equipment	2	Twice a Year
Hydraulic Equipment	2	Twice a Year
Electrical Equipment	2	Twice a Year
BB2020 Line Boring Machines	2	Twice a Year
BB5000 Line Boring Machines	2	Twice a Year
BB5000 Valve Grinding Machines	2	Twice a Year
BB5500 Coupling Boring Machines	2	Twice a Year
Universal Thread Cutting Machines	2	Twice a Year
HT60 Coupling Boring Machine	2	Twice a Year
HT40 Drilling Machines	2	Twice a Year
HT50 Drilling Machines	2	Twice a Year
HT60 Drilling Machines	2	Twice a Year
BB5000 Gearboxes	2	Twice a Year
BB6000 Gearboxes	2	Twice a Year
BB6000 Line Boring Machines	2	Twice a Year
BB7000 Line Boring Machines	2	Twice a Year
BB7000 Gearboxes	2	Twice a Year
BB5500 Gearboxes	2	Twice a Year
BB5000 Feederboxes	2	Twice a Year
BB5500 Feederboxes	2	Twice a Year
BB6000 Feederboxes	2	Twice a Year
Lead Screws for All Boring Bars	2	Twice a Year

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500i Flange Facers	2	Twice a Year
610i Flange Facers	2	Twice a Year
730i Flange Facers	2	Twice a Year
860i Flange Facers	2	Twice a Year
1000i Flange Facers	2	Twice a Year
1500i Flange Facers	2	Twice a Year
2000i Flange Facers	2	Twice a Year
All Pneumatic Motors for Flange Facers	2	Twice a Year
Portable Milling Machines	2	Twice a Year
All Pneumatic Motors for Portable Milling Machines	2	Twice a Year
Mini Mill Slot Cutter Machines	2	Twice a Year
Pneumatic Motors for Mini Mill Machines	2	Twice a Year
Valve Seat Torque Machines & Hydraulics	2	Twice a Year
Hydraulic Power Packs within Section	2	Twice a Year
Coupling Drilling Machines (Fuji)	2	Twice a Year
Corner Drills MT3	2	Twice a Year
Corner Drills MT4	2	Twice a Year
Individual Coupling Boring Machines (CNC)	2	Twice a Year
Lamina Drills & Power Packs	2	Twice a Year
Pencil Grinders	2	Twice a Year
Various Lathe Machines	2	Twice a Year
Various Milling Machines	2	Twice a Year
Various Grinders	2	Twice a Year
Spinning Machine	2	Twice a Year
Casting Machine	2	Twice a Year
Horizontal Boring Machines	2	Twice a Year
Vertical Lathe Machines	2	Twice a Year
Ovens Furnaces	2	Twice a Year
Tinning Pot	2	Twice a Year
Sandblasting Machine	2	Twice a Year
Bandsaw Machine	2	Twice a Year
Machine Containers	2	Twice a Year
Surface Grinders	2	Twice a Year
Mag Base drills MT3	2	Twice a Year
Mag Base drills MT4	2	Twice a Year
FF8000i Flange Facer	2	Twice a Year
ODF 30 Flange Facer	2	Twice a Year
600E OD Flange Facers	2	Twice a Year
ODF 40 Flange Facers	2	Twice a Year
3Ton Forklift	2	Twice a Year
300E OD Flange Facers	2	Twice a Year

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**Generator Services Machines and Equipment**

Asset Description	Quantity	Inspection period
Munters Heaters@ R 38000 per service x4 heater	14	Monthly (3 OFF)
Vacuum Pump Machine PVR Pump	9	Quarterly (2 OFF)
Guillotine Heli	2	Quarterly
Bandsaw	3	Quarterly
Pedestal Drill Machine	3	Quarterly
Sander Belt	3	Quarterly
Saw Circular	3	Quarterly
Milling Machine	1	Quarterly
Disk Sander	1	Quarterly
Pedestal Grinder	4	Quarterly
Cutting Machine	1	Quarterly
Cooper Heat Machine	2	Quarterly
Pedestal Rotor Rollers	4	Quarterly
Gas Oven	1	Quarterly
Exciter Oven	1	Quarterly
Machine shop ventilation	1	Quarterly
Brazing Machine	2	Yearly
Winch Rotor Puller	2	Quarterly
Steam Washer	1	Yearly
TVA Test Set	1	Yearly
Signal Generator	9	Yearly
Variac	5	Yearly
Endoscope Inspection	2	Yearly
Wedge Tightness Detector	2	Yearly
Excitation Control Unit	2	Yearly
Elcid Kit	3	Yearly
PD Equipment	1	Yearly
Winding ohmmeter	3	Yearly
Scopemeter	6	Yearly
Oscilloscope	1	Yearly
Multimeters	18	Yearly
Thermal imaging camera	1	Yearly
Megger	15	Yearly
Laboratory supply	1	Yearly
Hygrometer	4	Yearly
VLF	1	Yearly
PDK Baur	1	Yearly
400 DC Machine	1	Yearly
15 kv machine	1	Yearly
Flowmeter	6	Yearly
50kv resonance machine	1	Yearly
Helium Detector	8	Yearly

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- The contractor must have a track record of performing maintenance and repairs on similar machines and equipment.
- The contractor is expected to provide their own tools and equipment required to execute the full scope.
- The contractor will employ a supervisor for the entire contract period. Supervisor is appointed at the discretion of the contractor and must at least have a track record of supervisory role and experience of executing similar scope.
- The contractor is expected to employ only qualified personal to execute all technical works carried out such as disassembly, inspection, repairs, refurbishment, reassembly of the machines and equipment, also for mechanical, electrical and other works.

## **PROOF OF COMPLIANCE WITH THE LAW**

### **The contractor shall ensure that:**

1. All employees are registered with the Workmen's Compensation Commissioner in a manner which is acceptable to the Department of Labour and which satisfies the requirement of the compensation for occupational injuries and diseases act.
2. All employees are registered for unemployment.
3. All unskilled/casual staff must be paid in accordance with the Labour Act. The contractor will be responsible for their training.
4. All personnel shall wear the necessary protective clothing in accordance with Occupational Health and Safety Act No.85 / 1993 and the Construction Regulations of 2003.

## **HEALTH AND SAFETY**

The Contractor shall at all times comply with the requirements of the Occupational Health & Safety Act (1993), Construction Regulations (2003) and the Employer's Pre-construction Health and Safety Specification. In pursuit of the aforementioned, the Contractor shall allow for:

- Carrying out and documenting risk assessments of all work to be carried out under the contract.

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- Preparation of safe work procedures for all work to be carried out under the contract.
- Preparation of an H&S plan, discussing it with the Employer, and then amending it as agreed.
- Preparation for and conducting “toolbox talks” with relevant employees.
- Induction and training as and where required.
- Preparation of a Project H&S File.
- Regular updating of all of the foregoing.
- Provision of PPE and protective clothing for employees
- Complying with all H&S requirements for the duration of the contract
- Storage of cleaning material / equipment

## **PERSONAL PROTECTIVE CLOTHING**

- Overall (Minimum 2 per general worker and 2 per supervisor)
- Heavy duty gloves (Minimum 4 pairs per worker and 4 pairs per supervisor)
- Reflective bibs (minimum 1 per worker and 1 per supervisor)
- Safety Shoes (Minimum 1 per worker and 1 per supervisor)

## **4. REPORTING**

Reporting shall be done in writing at the end of every shift. Major finding on the machines during maintenance and refurbishment shall be communicated to the Project/Contract Manager. All contact information will be provided. Service/Maintenance report must be generated and submitted to the Contract manager for all the maintenance work that will be carried out.

## **5. SUPPORTING DOCUMENTS**

**NB: The following documentation must be returned for the purpose of technical evaluation:**

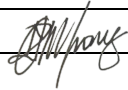
- Service report with recommendations
- Weekly Reports

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**6. DOCUMENT SUPPORTED BY:**

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Owen Makhubele	NDT Manager		

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